

Application No.: 09/980,009

Docket No.: 21547-00284-US

REMARKS

Claims 3-6, 8-16 and 18-22 are pending. Claims 1, 2, 7 and 17 are canceled. Claims 3-6, 8-16 and 18-20 are amended. Claims 21 and 22 are new.

Claim Amendments

Claims 21 and 22 are new independent claims including the subject matter of canceled claims 1 and 2, respectively. Claims 1 and 2 further include the subject matter of canceled claim 7. The additional subject matter in claims 21, 22 and 23 that was not present in canceled claims 1 and 2 is supported by original claim 7, the disclosure from page 12-15, and Figs. 6-9, for example. Claims 3-6, 8-16 and 18-20 are amended to improve readability and to provide proper dependency from new independent claim 22. No new matter has been added.

Specification Amendments

The specification has been amended to reflect the conversion of the multiple figures shown in FIG. 2 to FIGS. 2A-2C, as required by the Examiner. No new matter has been added.

Drawing Amendments

Applicants respectfully request reconsideration and withdrawal of the objection to the drawings based on the incorporation of multiple figures in FIG. 2. FIG. 2 has been amended to individually label the multiple figures previously shown therein as FIGS. 2A-2C.

Claim Rejections - 35 U.S.C. §112

Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-20 as being indefinite under 35 U.S.C. §112, second paragraph. Claims 1, 2, 7 and 17 have been canceled. Claims 3-6, 8-16 and 18-20 have been amended to eliminate indefinite and narrative language.

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Claim Rejections - 35 U.S.C. §102

Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-5, 9, 12, and 17-20 under 35 U.S.C. §102(b) as being clearly anticipated by Fujioka et al. (US 5,496,559).

Claims 1, 2 and 17 are canceled.

Claims 3-5, 9, 12 and 18-20 depend from new claim 22.

New claim 22 recites an arrangement comprising:

“an implant element comprising:

a head part arranged to be acted upon by a turning tool,

a threaded outer surface, and

a conical tip opposite the head part, wherein the conical tip comprises an open section, wherein the open section includes an axial hole that is open towards an end surface of the conical tip, and wherein the open section comprises at least one radial through-hole which communicates with the axial hole and extends radially through the implant element to the outer surface of the implant element, and;

at least one body comprising the at least one bioactive substance, wherein the at least one body is disposed in the open section and is arranged to permit direct release of the at least one bioactive substance from the body to the bone or tissue structure through the axial hole and the at least one radial through-hole.”

The claimed arrangement allows for the distribution of bioactive substances deep into surrounding bone and or tissue, and also allows for greater control over the release function of a particular implant element.

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Fujioka et al. discloses a porous, solid formulation for buccal or oral administration which contains a physiologically active substance. Fujioka et al. does not teach or suggest an implant element comprising a head part, a threaded outer surface and a conical tip, as recited in claim 22. Fujioka et al. also fails to teach and an open section in the conical tip, wherein the open section comprises an axial hole and at least one radial through-hole in communication with the axial hole, as recited in claim 22. For at least these reasons, Fujioka et al. does not anticipate claim 22. Therefore, claims 3-5, 9, 12 and 18-20 are allowable over Fujioka et al.

New claim 21 recites a method comprising:

“providing an implant element comprising:

a head part arranged to be acted upon by a turning tool,

a threaded outer surface, and

a conical tip opposite the head part;

providing an open section in the conical tip, wherein the open section comprises an axial hole that is open towards an end surface of the conical tip, and wherein the open section comprises at least one radial through-hole which communicates with the axial hole and extends radially through the implant element to the outer surface of the implant element;

providing at least one body in the open section, wherein the at least one body is arranged to permit direct release of the at least one bioactive substance from the body to the bone or tissue structure through the axial hole and the at least one radial through-hole;

and applying the at least one bioactive substance to the at least one body before or after providing the at least one body in the open section.”

Fujioka et al. fails to teach providing an implant comprising a head part, a threaded outer surface and a conical tip, as recited in claim 21. Fujioka et al. does not teach providing an open section in the conical tip, wherein the open section comprises an axial hole and at least one radial

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through-hole in communication with the axial hole. Fujioka et al. also does not teach providing at least one body (comprising a bioactive substance) in the open section of the conical tip. Thus, claim 21 is also allowable over Fujioka et al.

Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-4 and 16-18 under 35 U.S.C. §102(b) as being clearly anticipated by Lundgren (US 5,496,559).

Claims 1, 2 and 17 are canceled.

Claims 3-4, 16 and 18 depend from new claim 22. Lundgren discloses various embodiments of implants for treating supporting tissues adjacent to teeth and dental implants. However, none of the embodiments of Lundgren teach an implant element including all of the features of claim 22. More specifically, Lundgren does not teach an implant element comprising an open section in a conical tip of the implant element, wherein the open section comprises an axial hole that is open towards an end surface of the conical tip and at least one radial through-hole which communicates with the axial hole, as recited in claim 22. Therefore, claims 3-4, 16, 18 and 22 are allowable over Lundgren.

Additionally, Lundgren does not teach providing an open section in a conical tip of an implant element, wherein the open section comprises an axial hole that is open towards an end surface of the conical tip, and wherein the open section comprises at least one radial through-hole which communicates with the axial hole, as recited in new claim 21. Therefore, claim 21 is also allowable over Lundgren.

Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1, 2, 4 and 7-18 under 35 U.S.C. §102(b) as being clearly anticipated by Cox (US 4,959,052).

Claims 1, 2, 7 and 17 are canceled.

Claims 4, 8-16 and 18 depend from new claim 22. Cox teaches an oral applicator in the shape of a crown of one or more teeth. The crown of Cox does not include an implant element comprising a head part, a threaded outer surface and a conical tip, as recited in claim 22. The

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crown of Cox also does not have an open section in a conical tip, wherein the open section comprises an axial hole and at least one radial through-hole in communication with the axial hole, as recited in claim 22. Thus, Cox does not anticipate claims 4, 8-16, 18 and 22.

Cox further fails to teach a method including providing an implant comprising a head part, a threaded outer surface and a conical tip, as recited in claim 21. Cox further fails to teach providing an open section in a conical tip of an implant element, wherein the open section comprises an axial hole and at least one radial through-hole in communication with the axial hole. Cox also does not teach providing at least one body (containing a bioactive substance) in an open section of a conical tip of an implant. Thus, claim 21 is also allowable over Cox.

Conclusion

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicants believe no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 21547-00284-US from which the undersigned is authorized to draw.

Dated: January 26, 2005

Respectfully submitted,

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Attachments

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AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawings includes changes to FIG. 2.

Attachment: Replacement sheet
 Annotated sheet showing changes

Appl. No. 09/980,009
 Amendment dated January 26, 2005
 Reply to Office Action of July 26, 2004
 Annotated Sheet Showing Changes

Fig. 1

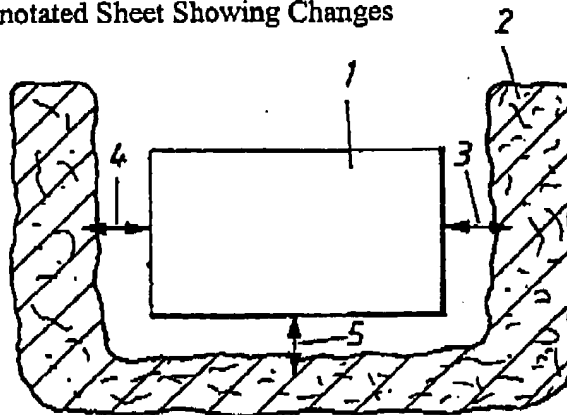


Fig. 2A

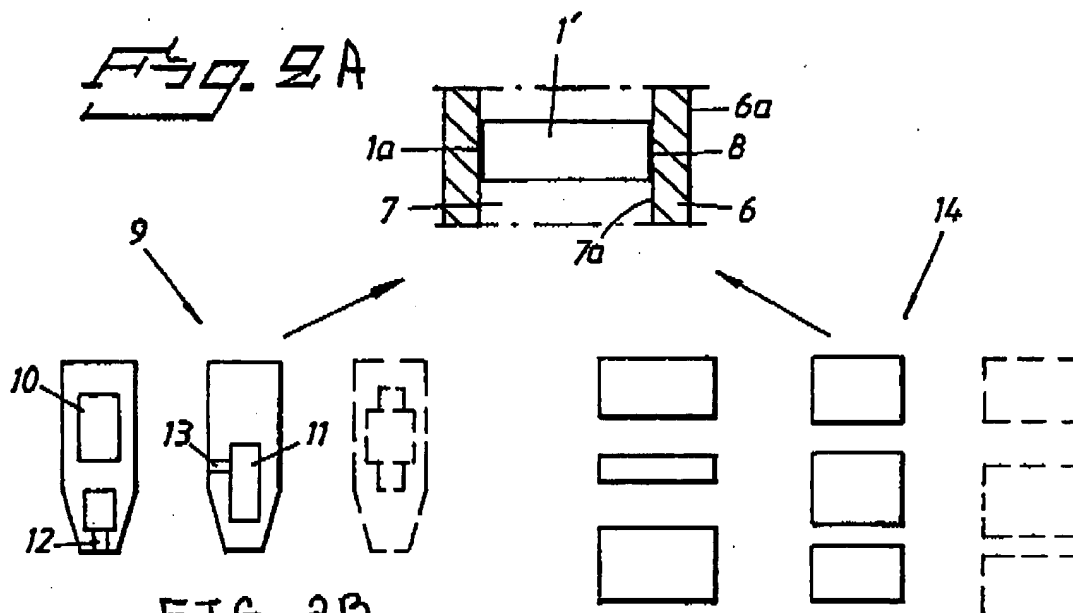


FIG. 2B

FIG. 2C

Fig. 3

